Release notes for ENDF/B Development n-007_N_014 evaluation

April 26, 2017

- `fudge-4.0` Errors:

  1. The file is missing a big chunk of data (I bet it's gamma data isn't it?)
     Reading ENDF file: ../n-007_N_014.endf (Error # 0): Missing data

     ```
     WARNING: MT = 28 has MF = 13, 14 data and no MF 3 data
     ```

  2. The file is missing a big chunk of data (I bet it's gamma data isn't it?)
     Reading ENDF file: ../n-007_N_014.endf (Error # 1): Missing data

     ```
     WARNING: MT = 32 has MF = 13, 14 data and no MF 3 data
     ```

  3. Calculated and tabulated Q values disagree.
     reaction label 28: n[multiplicity:'2'] + N13 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -10795606.03715515 eV vs -10553470. eV!
     ```

  4. Calculated and tabulated Q values disagree.
     reaction label 29: H1 + C14 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: 851384.5695381165 eV vs 625876.1 eV!
     ```

  5. Calculated and tabulated Q values disagree.
     reaction label 30: H1 + C14_e1 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -5242416.530462265 eV vs -5467925. eV!
     ```

  6. Calculated and tabulated Q values disagree.
     reaction label 31: H1 + C14_e2 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -5738016.530462265 eV vs -5963525. eV!
     ```

  7. Calculated and tabulated Q values disagree.
     reaction label 32: H1 + C14_e3 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -5876816.530462265 eV vs -6102325. eV!
     ```

  8. Calculated and tabulated Q values disagree.
     reaction label 33: H1 + C14_e4 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -6051216.530462265 eV vs -6276725. eV!
     ```

  9. Calculated and tabulated Q values disagree.
     reaction label 34: H1 + C14_e5 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -6160616.530462265 eV vs -6386125. eV!
     ```

  10. Calculated and tabulated Q values disagree.
      reaction label 35: H1 + C14_e6 (Error # 0): Q mismatch

      ```
      WARNING: Calculated and tabulated Q-values disagree: -6490017.530462265 eV vs -6715526. eV!
      ```

11. Calculated and tabulated Q values disagree.
reaction label 36: H2 + C13 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -5002107.604207993 eV vs -5326044. eV!
```

12. Calculated and tabulated Q values disagree.
reaction label 37: H2 + C13_e1 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -8091508.604207993 eV vs -8415445. eV!
```

13. Calculated and tabulated Q values disagree.
reaction label 38: H2 + C13_e2 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -8686608.604207993 eV vs -9010545. eV!
```

14. Calculated and tabulated Q values disagree.
reaction label 39: H2 + C13_e3 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -8855908.604207993 eV vs -9179845. eV!
```

15. Calculated and tabulated Q values disagree.
reaction label 42: He4 + B11 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 124346.7678394318 eV vs -158297. eV!
```

16. Calculated and tabulated Q values disagree.
reaction label 43: He4 + B11_e1 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -2000344.232160568 eV vs -2282988. eV!
```

17. Calculated and tabulated Q values disagree.
reaction label 44: He4 + B11_e2 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -4320544.232160568 eV vs -4603188. eV!
```

18. Calculated and tabulated Q values disagree.
reaction label 45: He4 + B11_e3 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -4895964.232160568 eV vs -5178608. eV!
```

19. Calculated and tabulated Q values disagree.
reaction label 46: He4 + B11_e4 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -6618555.232160568 eV vs -6901199. eV!
```

20. Calculated and tabulated Q values disagree.
reaction label 47: He4 + B11_e5 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -6667455.232160568 eV vs -6950099. eV!
```

21. Calculated and tabulated Q values disagree.
reaction label 48: He4 + B11_e6 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -7161165.232160568 eV vs -7443809. eV!
```

22. Calculated and tabulated Q values disagree.
reaction label 49: He4 + B11_e7 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -7853495.232160568 eV vs -8136139. eV!
```

23. Calculated and tabulated Q values disagree.
reaction label 50: He4 + B11_e8 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -8435955.232160568 eV vs -8718599. eV!
```

24. Calculated and tabulated Q values disagree.
reaction label 51: He4 + B11_e9 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -8795855.232160568 eV vs -9078499. eV!
```

25. Calculated and tabulated Q values disagree.
reaction label 52: He4 + B11_e10 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -9060655.232160568 eV vs -9343299. eV!
```

26. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (12060000.0 -> 150000000.0) vs (2479394.0 -> 150000000.0
```

27. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (10988000.0 -> 150000000.0) vs (2479394.0 -> 150000000.0
```

28. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

29. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

30. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9380002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

31. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9380002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

32. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8642721.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

33. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8540771.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

34. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (7535441.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

35. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

36. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6910500.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

37. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6650350.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

38. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6254502.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

39. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__m / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6101405.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

40. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (5473677.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

41. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__p / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (7535441.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

42. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__q / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9380002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

43. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__r / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (11524000.0 -> 150000000.0) vs (2479394.0 -> 150000000.0
```

44. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__s / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (8540771.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

45. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__t / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (4232489.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

46. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__u / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6650350.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

47. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__v / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

48. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__w / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9101444.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

49. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__x / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6101405.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

50. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__y / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

51. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__z / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

52. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__aa / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (7535441.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

53. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ab / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9380002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

54. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ac / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (5473677.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

55. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ad / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

56. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ae / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

57. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__af / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9101444.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

58. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ag / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9380002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

59. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ah / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6910500.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

60. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__aj / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (9916002.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

61. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__al / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6910500.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

62. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__am / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (5473677.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

63. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__an / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (5269144.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

64. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ao / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6254502.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

65. Energy range of data set does not match cross section range
production label 56: /reactionSuite/reactions/production[@label='56'] / Product: gamma__ap / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

```
WARNING: Domain doesn't match the cross section domain: (6910500.0 -> 150000000.0) vs (2479394.0 -> 150000000.0)
```

- `njoy2012` Warnings:

1. This nuclide has no URR and NJOY is upset about it
unresr...calculation of unresolved resonance cross sections (0): No URR

```
 ---message from unresr---mat  725 has no resonance parameters
                          copy as is to nout
```

2. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (0): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 600
```

3. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (1): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 601
```

4. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (2): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 602
```

5. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (3): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 603
```

6. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (4): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 604
```

7. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (5): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 605
```

8. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (6): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 606
```

9. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (7): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 650
```

10. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (8): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 651
```

11. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (9): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 652
```

12. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (10): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 653
```

13. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (11): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 700
```

14. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (12): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 701
```

15. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the

proper sections of File 4 or 6.
heatr...prompt kerma (13): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 800
```

16. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (14): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 801
```

17. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (15): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 802
```

18. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (16): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 803
```

19. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (17): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 804
```

20. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (18): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 805
```

21. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (19): HEATR/hinit (1)

```
 ---message from hinit---mf4 and 6 missing, isotropy assumed for mt 806
```

22. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (20): HEATR/hinit (1)

```
 ---message from hinit---mf4 and 6 missing, isotropy assumed for mt 807
```

23. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (21): HEATR/hinit (1)

```
 ---message from hinit---mf4 and 6 missing, isotropy assumed for mt 808
```

24. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (22): HEATR/hinit (1)

```
 ---message from hinit---mf4 and 6 missing, isotropy assumed for mt 809
```

25. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (23): HEATR/hinit (1)

```
 ---message from hinit---mf4 and 6 missing, isotropy assumed for mt 810
```

26. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (24): HEATR/hinit (4)

```
 ---message from hinit---mf6, mt 16 does not give recoil za=  7013
                          one-particle recoil approx. used.
```

27. This nuclide has no URR and NJOY is upset about it
purr...probabalistic unresolved calculation (0): No URR

```
 ---message from purr---mat  725 has no resonance parameters
                          copy as is to nout
```

28. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (0): ACER/check energy distributions (0)

```
 check energy distributions
   consis: ep.gt.epmax 8.701311E-12 with q.lt.0 for (n,x) at e  1.000000E-11 -> 1.000000E-11
```

29. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (1): ACER/check energy distributions (0)

```
check energy distributions
  consis:   awr.lt.180---this is probably an error.
```

30. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (2): ACER/check energy distributions (0)

```
check energy distributions
  consis: shifting eprimes greater than epmax and renorming the distribution
```

31. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (3): ACER/check energy distributions (0)

```
check energy distributions
  consis: ep.gt.epmax 2.001301E+01 with q.lt.0 for (n,x) at e  2.300000E+01 -> 2.005538E+01
```

32. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (4): ACER/check energy distributions (0)

```
check energy distributions
  consis:   awr.lt.180---this is probably an error.
```

33. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (5): ACER/check energy distributions (0)

```
check energy distributions
  consis: shifting eprimes greater than epmax and renorming the distribution
```

34. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (6): ACER/check energy distributions (0)

```
check energy distributions
  consis: ep.gt.epmax 2.610393E+01 with q.lt.0 for (n,x) at e  3.000000E+01 -> 2.658504E+01
```

35. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (7): ACER/check energy distributions (0)

```
check energy distributions
  consis:   awr.lt.180---this is probably an error.
```

36. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (8): ACER/check energy distributions (0)

```
check energy distributions
  consis: shifting eprimes greater than epmax and renorming the distribution
```

37. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (9): ACER/check energy distributions (0)

```
check energy distributions
  consis: ep.gt.epmax 3.045458E+01 with q.lt.0 for (n,x) at e  3.500000E+01 -> 3.124908E+01
```

38. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (10): ACER/check energy distributions (0)

```
check energy distributions
  consis:   awr.lt.180---this is probably an error.
```

39. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (11): ACER/check energy distributions (0)

```
check energy distributions
  consis: shifting eprimes greater than epmax and renorming the distribution
```

40. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (12): ACER/check energy distributions (0)

```
check energy distributions
  consis: ep.gt.epmax 1.044156E+02 with q.lt.0 for (n,x) at e  1.200000E+02 -> 1.049409E+02
```

41. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (13): ACER/check energy distributions (0)

```
check energy distributions
  consis:   awr.lt.180---this is probably an error.
```

42. There is bad Kalbach parameter (r(E) or otherwise)
check...ace consistency check (14): ACER/check energy distributions (0)

```
check energy distributions
  consis: shifting eprimes greater than epmax and renorming the distribution
```

- `acelst` Warnings:

1. The incident energy grid is not monotonic for this angular distribution
0: Bad Ang. Dist.

```
ACELST WARNING - Processing Ang.Dist.MT         2
                 E-grid non-monotonic   2.000000000E+01 2.000000000E+01
```

- `xsectplotter` Errors:

1. The file is missing a big chunk of data (I bet it's gamma data isn't it?)
(Error # 2): Missing data

```
WARNING: MT = 28 has MF = 13, 14 data and no MF 3 data
```

2. The file is missing a big chunk of data (I bet it's gamma data isn't it?)
(Error # 3): Missing data

```
WARNING: MT = 32 has MF = 13, 14 data and no MF 3 data
```